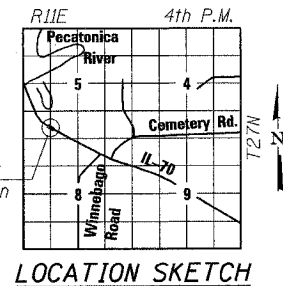


Existing Structure: Structure number 101-0146, station 302+76.80. The existing structure is a two-span PPC deck beam bridge built in 1982. The back to back abutment length is 80'-8 1/2" and the out to out bridge width is ±36'-6". In 2002 a 5" reinforced concrete wearing surface was added to the existing deck beams. The existing superstructure is to be removed and replaced with one lane of traffic maintained utilizing staged construction.

No Salvage

**INDEX OF SHEETS**

1. General Plan and Elevation
2. Steel Railing, Type SM with Concrete Wearing Surface
3. Superstructure and Stage Construction
4. Superstructure Details I
5. Superstructure Details II
6. Preformed Joint Strip Seal Details
7. Concrete Removal
8. Abutments
9. Pier
10. Pier Repairs
11. Bar Splicer Assembly Details
12. Temporary Concrete Barrier for Stage Construction
13. Steel Railing (Temporary)



ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
FAS 55	*	WINNEBAGO	12	52	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

\*(102 BR-1, 102 BR-2, 102 BR-3)D  
Contract # 64C93

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		5.1	5.1
Concrete Structures	Cu. Yd.		5.1	5.1
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2784		2784
Reinforcement Bars, Epoxy Coated	Pound	3840	640	4480
Bar Splicers	Each	78	12	90
Concrete Wearing Surface, 5"	Sq. Yd.	310		310
Bridge Deck Grooving	Sq. Yd.	310		310
Protective Coat	Sq. Yd.	310		310
Concrete Sealer	Sq. Ft.		184	184
Steel Railing, Type SM	Foot	155		155
Name Plates	Each	1		1
Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.		25	25
Preformed Joint Strip Seal	Foot	72		72
Asbestos Bearing Pad Removal	Each		52	52

**GENERAL NOTES**

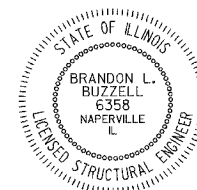
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the contractor will be paid for the quantity actually furnished at the unit price for the work.

Concrete Sealer shall be applied to the seat area of the Abutments. All Construction joints shall be bonded. The contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure. The existing name plate shall be cleaned and relocated adjacent to the new name plate. Cost included with Name Plates. If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute the load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of beams.

The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the profile grade and beam camber. See roadway plans for profile grade information. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. No in-stream work will be allowed on this project. Repair of the pier cap shall be completed prior to placement of the new deck beams. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray shall be applied before corrosion appears and allowed to dry according to the manufactures specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Brandon L. Buzzell*  
ENGINEER OF BRIDGES AND STRUCTURES



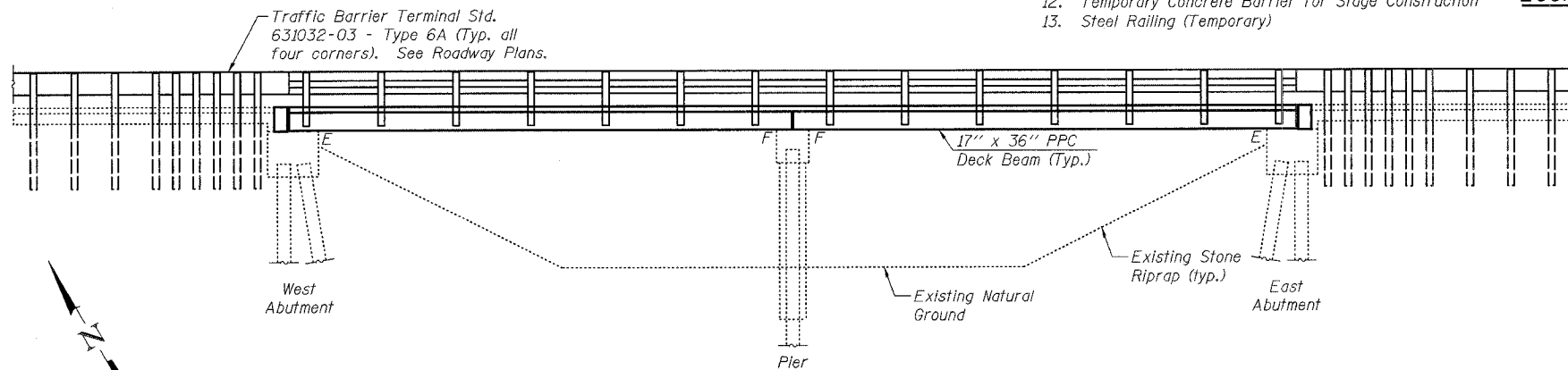
*Brandon L. Buzzell* 12/15/08  
Expires 11-30-08

**rjngroup**

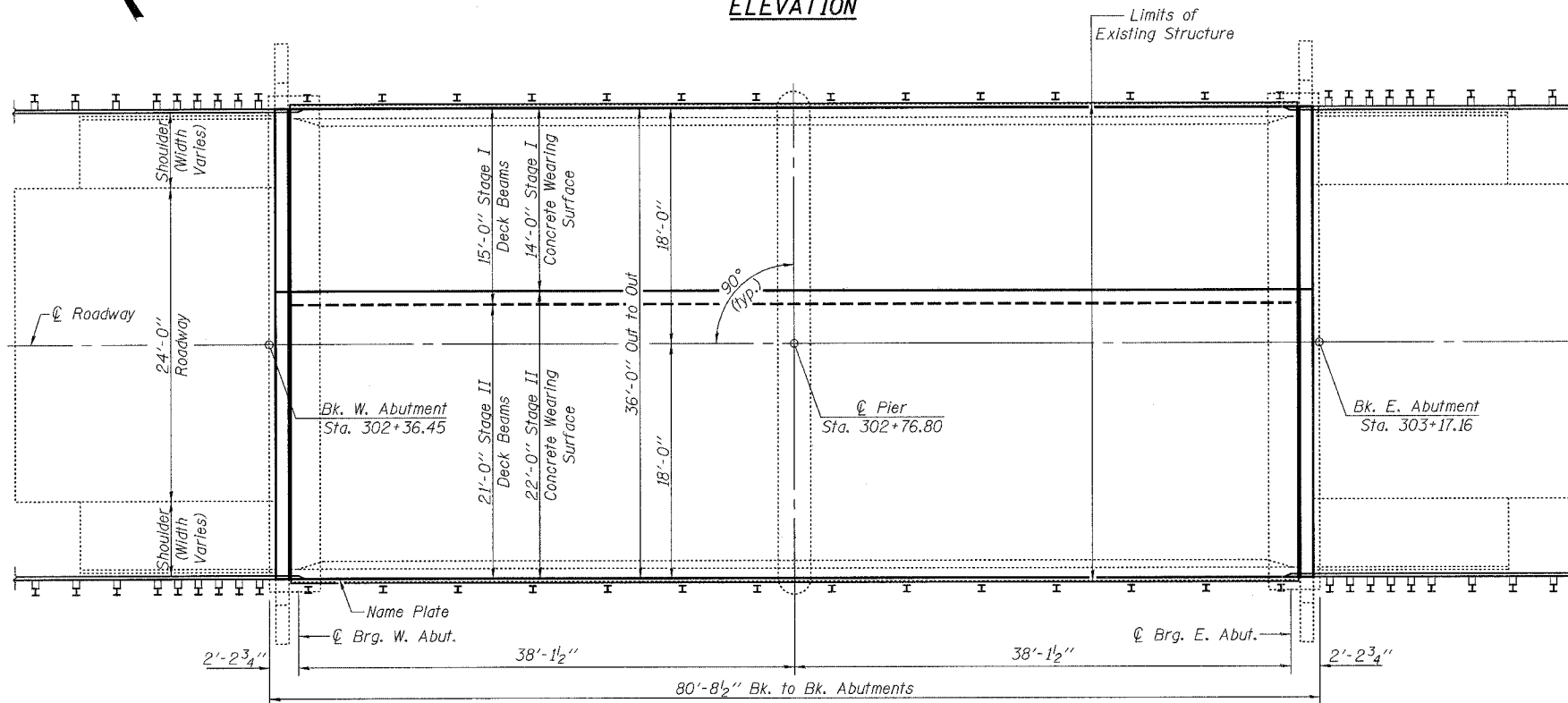
Excellence through Ownership

200 West Front Street  
Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN AND ELEVATION  
IL-70 OVER TRIBUTARY TO PECATONICA RIVER  
FAS RTE 55  
SECTION (102 BR-1, 102 BR-2, 102 BR-3)D  
WINNEBAGO COUNTY  
STATION 302+76.80  
STRUCTURE NO. 101-0146  
DATE: 12/15/2006  
DRAWN BY LCM  
CHECKED BY BLB



**ELEVATION**



**PLAN**

**LOADING HS20-44**

Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications - 17th ed.

**DESIGN STRESSES**

NEW & EXISTING CONSTRUCTION

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$  psi  
 $f'_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi (1/2"  $\phi$  low relax strands)  
 $f_{sl} = 201,960$  psi (1/2"  $\phi$  low relax strands)

STATION 302+76.80  
BUILT 2007 BY  
STATE OF ILLINOIS  
F.A.S. RT. 55 SEC. (102 BR-1,  
102 BR-2, 102 BR-3)D  
LOADING HS20  
STR. NO. 101-0146

**NAME PLATE**

See Std. 515001